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UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

23117

7590

05/27/2003

NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714 EXAMINER

VEILLARD, JACQUES

ART UNIT

CLASS-SUBCLASS

2175

707-205000

DATE MAILED: 05/27/2003

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,792	02/22/2000	Clifford Heath	659-28	2005

TITLE OF INVENTION: DATA FILE SYNCHRONISATION

APPLN, TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	08/27/2003

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

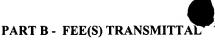
A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- □ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents Alexandria, Virginia 22313-1450 (703)746-4000

<u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee settifications. maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

05/27/2003

NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

	transmitted to the OSI 10, on the date maleuted below:
(Depositor's name)	
(Signature)	
(Date)	

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,792	02/22/2000	Clifford Heath	659-28	2005

TITLE OF INVENTION: DATA FILE SYNCHRONISATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$650	\$0	\$650	-	08/27/2003
EXAMINER		ART UNIT	CLASS-SUBCLASS			
VEILLARD, JACQUES		2175	707-205000			
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			For printing on the patent he names of up to 3 register	red patent attorneys	I	
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.		Correspondence	r agents OR, alternatively, ingle firm (having as a me	ember a registered	· 2	
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.		tion form	ttorney or agent) and the egistered patent attorneys or s listed, no name will be print	agents. If no name	3	Action of the Control

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will n	individual	☐ corporation or other private group entity	☐ governmen		
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):				
☐ Issue Fee	☐ A check in the amount of the fee(s) is enclosed.				
□ Publication Fee	Payment by credit card.	Form PTO-2038	is attached.		
Advance Order - # of Copies	☐ The Commissioner is he Deposit Account Number	ereby authorized	by charge the required fee(s), or credit any o(enclose an extra copy of this form).	verpayment, to	

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature)

(Date)

NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents. Alexandria, Virginia 22313-1450. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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APPLICATION NO.	FILING DATE		PLICATION NO. FILING DATE FIRST NAM		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,792	02/22/2000		Clifford Heath	659-28	2005		
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NIXON & VA	NIXON & VANDERHYE, PC				VEILLARD, JACQUES		
1100 N GLEBE 8TH FLOOR	ROAD			ART UNIT	PAPER NUMBER		
ARLINGTON, VA 22201-4714				2175	7 í		
UNITED STATES				DATE MAILED: 05/27/2003			

Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The patent term extension is 0 days. Any patent to issue from the above identified application will include an indication of the 0 day extension on the front page.

If a continued prosecution application (CPA) was filed in the above-identified application, the filing date that determines patent term extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system. (http://pair.uspto.gov)

Any questions regarding the patent term extension or adjustment determination should be directed to the Office of Patent Legal Administration at (703)305-1383.



UNITED STATES PATENT AND TRADEMARK OFFICE

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09/507,792	02/22/2000		02/22/2000 Clifford Heath		2005
23117	23117 7590 05/27/2003	05/27/2003		EXAMIN	ER
NIXON & VA	NIXON & VANDERHYE, PC			VEILLARD, JACQUES	
1100 N GLEBE 8TH FLOOR	ROAD			ART UNIT	PAPER NUMBER
ARLINGTON, VA 22201-4714				2175	
UNITED STATES			•	DATE MAILED: 05/27/2003	

Notice of Fee Increase on January 1, 2003

If a reply to a "Notice of Allowance and Fee(s) Due" is filed in the Office on or after January 1, 2003, then the amount due will be higher than that set forth in the "Notice of Allowance and Fee(s) Due" since there will be an increase in fees effective on January 1, 2003. See Revision of Patent and Trademark Fees for Fiscal Year 2003; Final Rule, 67 Fed. Reg. 70847, 70849 (November 27, 2002).

The current fee schedule is accessible from: http://www.uspto.gov/main/howtofees.htm.

If the issue fee paid is the amount shown on the "Notice of Allowance and Fee(s) Due," but not the correct amount in view of the fee increase, a "Notice to Pay Balance of Issue Fee" will be mailed to applicant. In order to avoid processing delays associated with mailing of a "Notice to Pay Balance of Issue Fee," if the response to the Notice of Allowance and Fee(s) due form is to be filed on or after January 1, 2003 (or mailed with a certificate of mailing on or after January 1, 2003), the issue fee paid should be the fee that is required at the time the fee is paid. If the issue fee was previously paid, and the response to the "Notice of Allowance and Fee(s) Due" includes a request to apply a previously-paid issue fee to the issue fee now due, then the difference between the issue fee amount at the time the response is filed and the previously paid issue fee should be paid. See Manual of Patent Examining Procedure, Section 1308.01 (Eighth Edition, August 2001).

Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

Notice of Allowability

Application No. **09/507,792**

Applicant(s)

Heath et al.

Examiner

JACQUES VEILLARD

Art Unit

2175



The MAILING DATE of this communication appears on the co	over sheet with the correspondence address
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAIN (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriat THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. the initiative of the Office or upon petition by the applicant. See 37 CFR 1	te communication will be mailed in due course. This application is subject to withdrawal from issue at
1. X This communication is responsive to the amendment filed on 4/3	30/2003 .
2. X The allowed claim(s) is/are 1-9, and 11-16. Renumbered 1-15	·
3. X The drawings filed on Feb 22, 2000 are accepted by the	ne Examiner.
4. Acknowledgement is made of a claim for foreign priority under	35 U.S.C. § 119(a)-(d).
a) ☒ All b) ☐ Some* c) ☐ None of the:	
1. 🛛 Certified copies of the priority documents have been recei	ived.
2. \square Certified copies of the priority documents have been received	ived in Application No
 Copies of the certified copies of the priority documents ha application from the International Bureau (PCT Rule 17 	ave been received in this national stage .2(a)).
*Certified copies not received:	•
5. \square Acknowledgement is made of a claim for domestic priority under	er 35 U.S.C. § 119(e) (to a provisional application).
(a) \square The translation of the foreign language provisional applicatio	n has been received.
6. Acknowledgement is made of a claim for domestic priority under	er 35 U.S.C. §§ 120 and/or 121.
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this community noted below. Failure to timely comply will result in ABANDONMENT of this EXTENDABLE.	unication to file a reply complying with the requirements s application. THIS THREE-MONTH PERIOD IS NOT
7. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s)	he attached EXAMINER'S AMENDMENT or NOTICE OF why the oath or declaration is deficient.
8. CORRECTED DRAWINGS must be submitted.	
(a) \square including changes required by the Notice of Draftsperson's P	Patent Drawing Review (PTO-948) attached
1) \square hereto or 2) \square to Paper No	
(b) \square including changes required by the proposed drawing correcti approved by the examiner.	ion filed, which has been
(c) \square including changes required by the attached Examiner's Amer Paper No	ndment/Comment or in the Office action of
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should each sheet. The drawings should be filed as a separate paper with a transmitt	be written on the drawings in the top margin (not the back) of tal letter addressed to the Official Draftsperson.
9. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOG attached Examiner's comment regarding REQUIREMENT FOR TH	GICAL MATERIAL must be submitted. Note the IE DEPOSIT OF BIOLOGICAL MATERIAL.
Attachment(s)	
1 X Notice of References Cited (PTO-892)	2 Notice of Informal Patent Application (PTO-152)
3 U Notice of Draftsperson's Patent Drawing Review (PTO-948)	4 Interview Summary (PTO-413), Paper No
5 Information Disclosure Statement(s) (PTO-1449), Paper No(s).	6 Le Examiner's Amendment/Comment
7 Li Examiner's Comment Regarding Requirement for Deposit of Biological Material	8 X Examiner's Statement of Reasons for Allowance
9 Other	HOSAIN T. ALAM
	HUSAIN I. ALAM DRIMARY FYAMINFR

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DETAILED ACTION

- 1. This action is responsive to the Applicant's communication filed on 4/30/2003.
- 2. Claims 1-9 have been amended and claims 11-16 added, and claim 10 canceled.
- 3. Claims 1-9, and 11-16 are pending and presented for examination.
- 4. Applicant's arguments filed on April 30, 2003 have been fully considered and they are deemed to be persuasive.

Specification

- 5. In accordance with the MPEP 606.01, please replace the current Title, "DATA FILE SYNCHRONIZATION" with
- --- DATA FILE SYNCHRONIZATION BETWEEN A SOURCE FILE AND REMOTE FILES
 IN A NETWORK ---

Allowable Subject Matter

- 6. Claims 1-9, and 11-16 are allowed over the prior art of record.
- 7. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1, 4, 7, 11, and 14, Applicant's particular method for synchronizing data between a receiving computer and a sending computer in a networking environment comprising of a source file at the sending computer and a reference file at the receiving computer (i.e., first computer). All the independent claims recite that the performance

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of the computation, the comparison and the construction of the target file has been done at the receiving computer (i.e., first computer) such as "at the receiving computer, comparing the source key values with reference values computed for respective blocks comprising a predetermined number of contiguous data units in the reference file to determine matches between source key values and reference key values; communicating from the receiving computer to the sending computer an indication of which source keys do not have matching reference keys, and transmitting data blocks from the source file corresponding to the unmatched source keys from the sending computer to the receiving computer; and constructing at the receiving computer a target file from the contiguous data units in the reference file determined to have reference key values matching respective source key values and the data blocks from the source file received from the sending computer wherein the constructed target file at the receiving computer is synchronized with the source file at the sending computer." These limitations in combination with the other limitations of the claims were not disclosed by, would not have been obvious over, nor would have been fairly suggested by the prior art of record.

The closest prior art, Pyne (U. S. Pat. No. 5,721,907) and Carson (U. S. Pat No. 5,978,805) disclose conventional synchronization wherein the computation and construction of data have been done in the sending computer (i.e., source computer) which opposite to the applicant's method. Carson and Pyne do not implicitly disclose their system to perform the computation, the comparison and the construction the data file at the receiving computer (i.e.,

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first computer) as claimed by the Applicant. The prior art neither singularly or in combination, fail to anticipate or render Applicant's limitations above obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Other Prior Art Made of Record

8. Mahajan et al.

U. S. Pat No. 6,226,650,

Williams, Ross, Neil

W**6** 96/25801, and

Conclusion

- 9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- 10. Any response to this action should be mail to:

Commissioner of Patent and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 746-7239 (for formal communication intended for entry)

Or:

Application/Control Number: 09/507,792:

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(703) 746-7240 (for informal of draft communications, please label

"PROPOSED" or "DRAFT")

Hand - delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington.

VA, Fourth Floor Lobby (Receptionist Telephone No. (703) 305-3900).

11. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Jacques Veillard whose telephone number is (703) 305-7094. The examiner

can normally be reached Monday through Friday from 9:30 AM to 4: 30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Dov Popovici, can be reached on (703) 305-3830. The fax phone number for this

group is (703) 308-5403.

Jacques Veillard

Jacques Veillard

Patent Examiner TC 2100

HOSAIN T. ALAM
PRIMARY EXAMINER

May 20, 2003